SP

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,650	03/29/2004	Bradley D. Schweigert	KMC-615	3403

39915 7590 03/10/2005

KARSTEN MANUFACTURING CORPORATION
LEGAL DEPARTMENT
PHOENIX, AZ 85029

EXAMINER	
PASSANITI, SEBASTIANO	
ART UNIT	**PAPER NUMBER**
3711	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/812,650	SCHWEIGERT ET AL.	
	Examiner	Art Unit	
	Sebastiano Passaniti	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *see detailed Office action*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/29/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is responsive to communication received 03/29/2004 – application papers filed and IDS.

Claims 1-8 are pending.

Following is an action on the MERITS:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio in view of Ryan, Bamberger and Stites. The patent to Nishio shows the applicant's basic inventive concept and includes a hollow metal body having a hosel and further including a volume of at least 400 cubic centimeters (col. 3, lines 28-31). The center of gravity is located a distance (D) between 20 and 40 mm from the face plane. This would appear to suggest that the center of gravity may be located about 16.0 +/- 4.0 mm rearward of a plane containing the shaft axis. In addition, the center of gravity in Nishio is located a distance (L) between 26-36 mm from the shaft center line. This would appear to include the distance of 36.0 +/- 6.0 mm that the center of gravity is located toward the toe end form a plane containing the shaft. Nishio differs from the claimed invention in that Nishio does not show that the center of gravity is located 2.1 +/- 2.0 mm (as required by claim 1) or between 1.0 and 3.0 mm (as required by claim 4) above a horizontal plane passing through the center of the face. The teaching

reference to Stites provides a broad teaching that the skilled artisan would have recognized that the center of gravity may have been located anywhere within a hollow metal wood-type club head simply by adjusting the wall thickness of the shell and/or supplementing the weight of the head using sole attachments. See col. 6, lines 16-20 in Stites. Each of Ryan and Bamberger provide more specific teachings as to why the skilled artisan would have been motivated to shift the location of the center of gravity. For example, Ryan indicates that raising or lowering the center of gravity enables a golfer to customize the shot trajectory (col. 3, lines 33-43 and col. 4, lines 12-23). Bamberger similarly indicates that the trajectory of a hit golf ball may be affected by the location of the center of gravity (col. 4, lines 18-43). In view of the patents to Stites, Ryan and Bamberger, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Nishio device by slightly shifting the center of gravity above a horizontal plane passing through the center of the face, the motivation being to desirably affect the trajectory of a struck ball.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio in view of Ryan, Bamberger, Stites and Sano. Nishio in view of Ryan, Bamberger and Stites has been discussed above. Though the Nishio device does not detail a surface area for the face meeting the claimed requirements, Nishio does acknowledge that the face must be sized to adequately size the sweet spot. See col. 4, lines 41-45 in Nishio. Sano, while more specific in the dimensions necessary to calculate the surface area provides an area value just slightly outside of the claimed requirements. Nevertheless, it is felt that the combination of teachings of Nishio and

Sano together would have made it obvious to the skilled artisan to suitably size the surface area of the face in order to present a sweet spot that is neither too big nor too small as sensed by the golfer.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio in view of Ryan, Bamberger, Stites and Noble. To have further modified the device in the cited art reference to Ryan by providing a face thickness that tapers as claimed in order to distribute the weight of the head for enhanced performance and to strengthen the center of the face where impact is most likely would have been obvious in view of the patent to Noble, which shows it to be old in the art to provide a hollow metal club head with the greatest thickness at the center in order to provide increased resistance to the impact load and to further taper the wall thickness towards the perimeter to desirably redistribute the weight of the head (col. 3, line 41 through col. 2, line 5).

Claims 6, 7 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio in view of Ryan, Bamberger, Stites, Ezawa and Moore. Specific to claims 6 and 7, the effect on the moment of inertia due to a change in the club head size, material make-up, weight distribution and location of the center of gravity is well-known in the art and exemplified by Ezawa (col. 2, line 11 through col. 3, line 29). Where a parameter optimized is recognized as being result-effective, that optimization is normally considered an obvious matter to one having ordinary skill in the art. See **In re Antonie**, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); **In re Aller**, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). Under the circumstances here, the applicant's claimed dimensions for the moment of inertia involve no more than the optimization of a result-effective variable

and it would have been obvious to one having ordinary skill in the art to provide the Nishio device with a suitable moment of inertia, based upon the teachings of Ezawa. As to claim 8, to have further modified the device in the cited art reference to Nishio by providing a sole thickness between 1.2 and 0.7 mm in thickness in order to provide a means for adjusting the location of the center of gravity and/or to lighten the overall weight of the head would have been obvious in view of the patents to Ezawa and Moore, which show it old in the art to size the sole thickness with a dimension of 0.7 mm (Ezawa, col. 3, lines 48-49 and col. 4, lines 43, 44) or between 1.5 and 4.0 mm (Moore, col. 2, lines 55-56) in order to change the weight distribution of the head.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the location of the sweet spot in Figure 1 in Rugge.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sebastiano Passaniti whose telephone number is 571-272-4413. The examiner can normally be reached on Mon-Fri (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sebastiano Passaniti
Primary Examiner
Art Unit 3711

S.Passaniti/sp
March 6, 2005